

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference	<b>FOR FURTHER ACTION</b>	
International application No. PCT/EP2004/003992	International filing date (day/month/year) 09.04.2004	Priority date (day/month/year) 13.05.2003
International Patent Classification (IPC) or national classification and IPC C11D1/835, C11D1/62, C11D1/72		
Applicant UNILEVER PLC et al.		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 7 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☐ sent to the applicant and to the International Bureau a total of sheets, as follows:
    - ☐ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in Item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

Date of submission of the demand  30.08.2004	Date of completion of this report  06.04.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Telephone No. +49 89 2399-  

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.  
PCT/EP2004/003992

## Box No. 1 Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

### Description, Pages

1-23 as originally filed

### Claims, Numbers

1-10 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	
	No: Claims	1-10
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

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**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Novelty (Article 33(2) PCT)**

1.1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

The following documents disclose already conditioning compositions according to present claim 1.

a) **US-A-2002/035053** (D1) describes softening compositions comprising diester quats and Lutensol TO5 (example 1, compositions 1,6; example 2) or Lutensol AO5 (example 1, composition 3), which seem to fall within the formula I defined by present claim 1 as indicated by the present application on page 6, lines 1-3.

b) **WO-A-92/15745** (D2) depicts a softening composition comprising a ditallow imidazoline ester, Lutensol TO3, Lutensol TO5 and Lutensol TO8 (examples 2 and 3).

1.2. Since the Lutensol used in said documents is a C<sub>13-15</sub> secondary alcohol having 3 (TO3), 5 (TO5) or 8 (TO8) ethoxy groups, present dependent claims 2-8 also lack novelty.

1.2. Moreover, in view of the examples of the present application (example F comprising nonionic (8)), it seems that also Coco 5 EO (Genapol C050) fall within the formula I defined by present claim 1.

**WO-A-01/04254** (D3) describes already a softening composition comprising Coco 5 EO or the corresponding Coco 3 EO in combination with a dioleylester of triethanol ammonium methyl sulphate (examples 7-9, 11, 15-28). Thus, also D3 detracts from the novelty of present claims 1-9.

1.3. The softening agents used in the examples of D1 (TEA und DEA diester quat) are commonly used esterquats which seem to fall under the formula of present claim 9.

Thus, also claim 9 lacks novelty.

1.4. Claim 10 is directed to the use of an ethoxylated secondary alcohol for stabilizing a softening composition. Claim 10 is not restricted to the use of stabilizing certain

compositions containing esterquats.

Since the term elevated temperature has no well defined meaning (contrary to Article 6 PCT), this term can be interpreted as providing long term stability at room temperature (an elevated temperature with respect to storing at a temperature close to e.g. 0°C).

**US-B-4 045 361** (D4, col. 13, lines 48-53) explains that a 1:1 mixture of Tergitol 15-S-3 and 15-S-9 (C11 to C15 ethoxylated secondary alcohols fulfilling the requirements of formula I of present claim 10), is added to a softening composition in order to provide long term stability to the composition.

Document **US-B-3 928 213** (D5, col. 8, lines 4-32) describes that ethoxylated secondary alcohols such as Tergitol 15-S-3 promote shelf stability and desired viscosity of softening compositions.

Thus, claim 10 lacks novelty over D4 and D5.

**2. Inventive Step (Article 33(2) PCT)**

- 2.1. Since a discussion of inventive step in view of the problem solution approach makes only sense if a feature can be detected in the claims, which renders the subject-matter of a claim novel over the prior art, inventive step is discussed in the following with respect to the results shown in the examples of the present application.

The present application aims at stabilizing fabric conditioning compositions (page 1, lines 28-31.

According to the general teaching of the present application, this problem is solved by using ethoxylated secondary alcohols.

As indicated in D4 and D5, such alcohols are known to act as stabilizers for softening compositions. D4 and D5 clearly indicate, that shelf storage properties of compositions can be improved by using said surfactants.

Since shelf storage indicates to the skilled person automatically not only a storage ability at 20°C (room temperature in northern Europe) but implies automatically also a certain extent of elevated temperature storage ability (at e.g. 35 °C room temperature in southern Europe), the skilled person is clearly taught by these documents to use said secondary alcohol ethoxylates in order to improve the storage ability even at slightly elevated temperatures above 37 °C (compared to

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the standard room temperature in the United Kingdom or Germany).  
Moreover, in view of documents D1-D5 said surfactants seem to be quite common ingredients in softening compositions.

2 The examples of the present application do not seem to justify an inventive step for a specific combination of ingredients. No clear indication can be found in which case a nonionic stabilizer leads to improved stability, stable viscosity or avoids flocculation, pearlescence or solidification. It seems even from the examples that with presence of some nonionics stabilizers the storage stability is worse than without the stabilizer, compare e.g. sample A with samples C,D,F-H at 45°C or C,D,F,G,J at 50°C.

Thus, no inventive concept can be seen by the results demonstrated in the examples of the present application.

**2.2. US-B-5 409 621 (D6)** teaches that high temperature stability is achieved by using nonionic surfactants having a certain HLB value und Kraft point (col. 3, lines 29-57).

Thus, D6 addresses the same problem as the present application and could be regarded as closest prior art (as any of documents D1-D5 cited for novelty).

D6 teaches to use primary alcohol ethoxylates as stabilizers (claim 1).

D6 indicates that ethoxylated long chain fatty alcohols with an ethoxylation degree of less than 10 are less preferred stabilizers, since they are problematic for their aquatic toxicity (col. 3, lines 58-67). However, this does not indicate, that these surfactants do not work as stabilizers.

The skilled person looking for an alternative to the nonionics used according to D6 is taught that the HLB value and the Kraft point are important features for the stabilizer. Since the skilled person is well aware, that ethoxylated secondary alcohols are not toxic, since they are commonly used in softening compositions and moreover fulfil the requirements with respect to the HLB value and Kraft point, the skilled person would in an obvious manner choose these alternative nonionic surfactants as stabilizers.

Thus, the subject-matter of present claim 1 lacks an inventive step in view of D6.

**3. General remarks**

The attention of the applicant is drawn of the fact that any amendments have to comply with the requirements of Article 34(2)(b) PCT. Thus, the amendments should not add anything to the teaching of the application documents as originally

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filed.

If the applicant wishes to submit amended application documents, he is requested to **clearly indicate every amendment** and moreover **show a basis in the originally filed documents** for any such amendment.

The amendments are preferably made on copied pages of the originally filed application documents as long as said copies remain clearly understandable and readable (Guidelines PCT/GL/ISPE/1, Chapter 20.06-20.08).